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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/801,695	03/09/2001	Toshiro Hayakawa	Q61191	3297

7590 11/19/2003

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EXAMINER

RODRIGUEZ, ARMANDO

ART UNIT	PAPER NUMBER
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2828

DATE MAILED: 11/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/801,695

Applicant(s)

HAYAKAWA ET AL. 

Examiner

Armando Rodriguez

Art Unit

2828

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.


- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-16 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-7 and 9-16 is/are allowed.
- 6) ☒ Claim(s) 8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.


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Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: .

DETAILED ACTION

Response to Arguments

Applicant's arguments filed on September 3, 2003 regarding claim 8 have been fully considered but they are not persuasive.

Applicant's argument on page 6 pertaining to claim 8, where applicant describes the claim as reciting a functional limitation within the preamble and further directs the examiners attention to pages 5-6 of the specification. Pages 5-6 of the specification describes the functional limitation as a result of a the particular structural arrangement of the laser, where the laser is not symmetric about the quantum well, which does not allow the injected current to widely spread. None of the structural arrangement described in pages 5-6 of the specification are recited within claim 8, furthermore applicant is reminded that it is impermissible to read subject matter from the specification into the claim, see MPEP 2111.

Therefore, claim 8 is anticipated by the Hirata reference because both lasers have similar structural elements in a similar arrangement.

The rejection of claims 9-14 are withdrawn based on applicant's amendment and arguments filed on September 3, 2003.

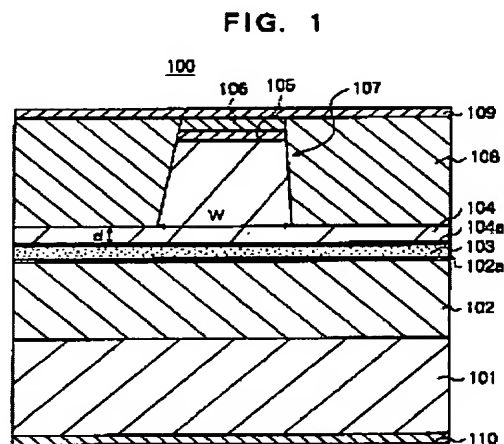
Claim Rejections - 35 USC § 102

(e) the invention was described in-

- (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
- (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claim 8 is rejected under 35 U.S.C. 102(e) as being anticipated by Hirata (PN 6,195,375).

Figure 1 illustrates a semiconductor laser having lower and upper cladding layers (102), (104), an active layer (103), lower and upper guide layers (102a) and (104a) where the upper guide layer has a thickness smaller than the lower guide layer and a stripe width (W) of $0.4\text{ }\mu\text{m}$ or less, as described in the abstract and columns 6 and 7.



Allowable Subject Matter

Claims 2-7,9-15 and 16 are allowed.

The following is an examiner's statement of reasons for allowance:

Regarding claims 2-7,15,16,

After reviewing applicant's amendment and conducting an updated search none of the cited prior arts alone or in combination discloses the claimed semiconductor laser having the structural combination of independent claim 2 with a lower and upper cladding layer, a quantum well layer, a current confinement layer and a lower and upper

waveguide layer, where the upper waveguide layer has a first thickness smaller than a second thickness of the lower waveguide layer and where the sum of the first and second thickness is 0.5 μm or greater.

Regarding claims 9,10,13,14,

After reviewing applicant's amendment and conducting an updated search none of the cited prior arts alone or in combination discloses the claimed semiconductor laser having the structural combination of independent claim 9 in particular having the current confinement layer formed above the upper optical waveguide layer and in physical with the optical waveguide and having an upper cladding layer disposed across a longitudinal direction of the index-guided structure with first and second edges, which are aligned with the longitudinal edges of the lower cladding layer.

Regarding claims 11,12,

After reviewing applicant's amendment and conducting an updated search none of the cited prior arts alone or in combination discloses the claimed semiconductor laser having the structural combination of independent claim 11 in particular having the current confinement layer formed above the upper optical waveguide layer and in physical with the optical waveguide and where the lower and upper optical waveguides and the quantum wells are made of aluminum-free semiconductor material.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion


THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Armando Rodriguez whose telephone number is (703) 308-6218. The examiner can normally be reached on 10-hour day / M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Ip can be reached on (703) 308-3098. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-4881.


Armando Rodriguez
Examiner
Art Unit 2828


Paul Ip
Supervisor
Art Unit 2828

AR/PI